1. (Previously Presented) A liquid crystal display comprising:

an upper substrate having an inner surface on which an upper electrode and an upper grating film having surface undulation are laminated;

a lower substrate having an inner surface on which a lower electrode and a lower grating film having surface undulation are laminated, the inner surface of the lower substrate facing the inner surface of the upper substrate; and

a liquid crystal having dielectric anisotropy which is sealed in the space between the upper substrate and the lower substrate,

wherein each of pixels having a predetermined period includes a plurality of sub pixels having different alignment structures in one period,

wherein the surface undulations are one-dimensional and the period of the surface undulations is between 1/4 and 2 times of the predetermined period of the pixels.

2. (Original) The liquid crystal display according to Claim 1, wherein the upper grating film having surface undulation is laminated upon the upper electrode in the upper substrate.

3. (Original) The liquid crystal display according to Claim 1, wherein the lower electrode is laminated upon the upper grating film having surface undulation in the upper substrate.

4. (Original) The liquid crystal display according to Claim 1, wherein the lower grating film having surface undulation is laminated upon the lower electrode in the lower substrate.

5. (Original) The liquid crystal display according to Claim 1, wherein the lower electrode is laminated upon the lower grating film having surface undulation in the lower substrate.

6. (Original) The liquid crystal display according to Claim 1, wherein the angle formed between the direction of the surface undulation on the upper substrate and the direction of the surface undulation on the lower substrate is between 0° and 180°.

7.(Original) The liquid crystal display according to Claim 6, wherein the angle formed between the direction of the surface undulation on the upper substrate and the direction of the surface undulation on the lower substrate is approximately 90°.

8. (Original) The liquid crystal display according to Claim 1, wherein at least one of the upper grating film of the upper substrate and the lower grating film of the lower grating film of the lower substrate is a vertical alignment film.

9. (Original) The liquid crystal display according to Claim 8, wherein the pretilt angle of the liquid crystal from the direction normal to the upper substrate or the lower substrate having the vertical alignment film is between 0° and 9°.

10. (Original) The liquid crystal display according to Claim 1, wherein at least one of the upper grating film on the upper substrate and the lower grating film on the lower substrate is a horizontal alignment film.

11. (Original) The liquid crystal display according to Claim 10, wherein the pretilt angle of the liquid crystal from the direction normal to the upper substrate or the lower substrate having the horizontal alignment film is between 0° and 9°.

12. (Original) The liquid crystal display according to Claim 1, wherein the surface undulation is formed using a heat-reactive film.

13. (Original) The liquid crystal display according to Claim 1, wherein the surface undulation is formed using a photo-reactive resin.

14. (Previously Presented) The liquid crystal display according to Claim 13, wherein the photo-reactive resin material is an ultraviolet-reactive resin and the difference between the ordinary refractive index of the liquid crystal and the refractive index of the photo-reactive resin is 2% or less.

15. (Original) The liquid crystal display according to Claim 14, wherein the height of the surface undulation is determined according to the amount of the irradiated ultraviolet light.

16. (Cancelled)

17. (Original) The liquid crystal display according to Claim 1, further comprising polarizers which are formed on the outer surfaces of the upper substrate and the lower substrate, the optic axes of the said polarizers being perpendicular to each other; and a backlight unit.

18. (Original) The liquid crystal display according to Claim 17, further comprising optical compensation films between the outer surfaces of the upper substrate and the lower substrate and the respective polarizers.

19. (Original) The liquid crystal display according to Claim 18, wherein the optic axes of the optical compensation films are configured to form approximately 45° to the optic axes of the relevant polarizers.

20. (Original) The liquid crystal display according to Claim 1, further comprising a reflection plate formed on the inner surface or the outer surface of at least one of the upper substrate and the lower substrate; and a polarizer formed on the outer surface of the substrate other than the substrate whereupon the reflection plate is formed.

21. (Original) The liquid crystal display according to Claim 20, further comprising an optical compensation film between the polarizer and the substrate whereupon the polarizer is formed.

22. (Original) The liquid crystal display according to Claim 21, wherein the optic axis of the optical compensation film is configured to form approximately 45° to the optic axis of the polarizer.

23. (Previously Presented) The liquid crystal display according to Claim 1, wherein the liquid crystal is rearranged in a multi-domain structure when an electric field is applied.

24. (Previously Presented) A liquid crystal display comprising:

an upper substrate on which an upper electrode and an upper grating film having a first undulation are formed, the first undulation being substantially parallel with a first direction;

a lower substrate on which a lower electrode and a lower grating film having a second undulation are formed, the lower substrate facing the upper substrate, the second undulation being substantially parallel with a second direction that is different from the first direction; and

a liquid crystal between the upper substrate and the lower substrate, the liquid crystal being periodically arranged and having at least two pretilt angles in one period.

25. (Previously Presented) The liquid crystal display according to Claim 23, wherein the liquid crystal is rearranged in a multi-domain structure when an electric field is applied.

26. (Previously Presented) The liquid crystal display according to Claim 23, wherein the first and second directions are substantially perpendicular to each other.

27. (Previously Presented) The liquid crystal display according to Claim 23, wherein the first undulation has a first convex portion and a first concave portion, and the second undulation has a second convex portion and a second concave portion.

28. (Previously Presented) The liquid crystal display according to Claim 26, wherein the first convex portion is substantially symmetrical to a surface that passes through a top line thereof and is substantially perpendicular to the upper substrate, and the first concave portion is substantially symmetrical to a surface that passes through a bottom line thereof and is substantially perpendicular to the upper substrate.

29. (Previously Presented) The liquid crystal display according to Claim 26, wherein the second convex portion is substantially symmetrical to a surface that passes through a top line thereof and is substantially perpendicular to the lower substrate, and the second concave portion is substantially symmetrical to a surface that passes through a bottom line thereof and is substantially perpendicular to the lower substrate.

30. (Previously Presented) A liquid crystal display comprising:

an upper substrate on which an upper electrode and an upper grating film having a first undulation are formed, the first undulation being substantially parallel with a first direction;

a lower substrate on which a lower electrode and a lower grating film having a second undulation are formed, the lower substrate facing the upper substrate, the second undulation being substantially parallel with a second direction that is different from the first direction; and

a liquid crystal disposed between the upper substrate and the lower substrate,

wherein the first and second undulations form at least four multi-domains in one period of a unit pixel.